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SOME ACCOUNT OF THE FIRST USE OF SULPHURIC ETHER BY  
INHALATION IN SURGICAL PRACTICE.

By George Hayward, M.D.

[Read before the Boston Society for Medical Improvement, April 12th, 1847.]

THAT most persons can be rendered insensible to the pain of surgical operations by inhaling the vapor of sulphuric ether, is now well established. The safety of so doing can hardly be questioned, when it is known that it has probably been used in this way by several thousand individuals in this city within the last six months, without a fatal, and I believe I may add, an alarming result, in a single instance. Ill consequences, too, are most likely to be met with when a powerful agent, like this, is first getting into use, before all its properties are well understood, and before the best mode of administering it has been ascertained. That some unpleasant cases have occurred, there is no doubt; that it has failed to produce the desired degree of insensibility in a few others, is certain; but in no instance of which I have heard, has there been any serious or untoward effects that continued for any length of time.

At the same time it must be admitted that a great degree of caution is required in its administration, and it therefore can only be regarded safe in the hands of scientific and skilful persons. The dangers seem to me to arise principally from two sources. First, from allowing the inhalation to be too long continued; and secondly, from not adopting suitable means by which the lungs can be well supplied with atmospheric air, while the inhalation is going on.

With regard to the first, it may be observed, that it hardly admits of a doubt, that the state of the system that is produced by the vapor of ether, is that of narcotism; similar to what is sometimes caused, though usually in a less degree, by wine, alcohol, and various medicinal agents. The effects, therefore, being on the brain and nervous system, it is obvious that if it be long kept up, and carried to a great extent, alarming symptoms would be likely to ensue. But for how long a period it can be safely inhaled, has not yet been ascertained.

In respect to the second source of danger, it is very apparent that if the lungs be not well supplied with atmospheric air, the blood cannot be perfectly arterialized, and, of course, a greater or less degree of asphyxia will be the consequence. This, however, can be easily guarded against, by having the inhaling apparatus so arranged, that the patient shall at

each inspiration obtain an abundant supply of atmospheric air, while means are at the same time adopted to have this air well charged with the vapor of the ether. In this way the state of narcotism is in most cases readily induced, while that of asphyxia is entirely avoided.

It is not pretended, however, that there may not be circumstances in some cases, that would forbid the use of the ether altogether. It would not probably be deemed prudent to allow it to be inhaled by persons who have had hemorrhage from the lungs, or by those who were strongly predisposed to it; and it would perhaps be hardly safe to administer it to individuals who have formerly been or were at the time affected with mania, epilepsy or hysteria.

Children, from the great development of the nervous system in the early periods of life, are sometimes affected unpleasantly by the inhalation of the ether.

But on all these points there is yet much to be learnt. It is only surprising that so much has been ascertained in relation to the subject, when it is recollected that the first experiments with ether for surgical purposes were made but little more than six months ago.

It is well known that surgeons have for a long time sought to discover means of lessening, in some degree, if they could not altogether prevent, the pain of surgical operations; but their efforts were unsuccessful, and the world is indebted to individuals, not strictly of the surgical profession, for a discovery that will do more than any other to lessen human suffering. I believe I am warranted in saying that this remarkable property of ether, when taken into the human system by inhalation, of rendering surgical operations painless, was discovered in this city, and that the first successful application of it was made here in September last by Dr. Morton, a distinguished dentist. He extracted teeth from several individuals who were made insensible and unconscious in this way, without any subsequent ill effects.

It is understood that Dr. G. T. Jackson, well known by his great attainments in geology and chemistry, first suggested the use of the ether; but to Dr. Morton, I think, must be awarded the credit of being the first who demonstrated, by actual experiment on the human subject, the existence of this wonderful property. Having satisfied himself that teeth could be extracted without pain from those who had previously inhaled the ether, he was desirous of having it tried on persons who were to undergo longer and more severe surgical operations. Those he applied, about the middle of October last, to had at the Massachusetts General Hospital, and Dr. J. C. Warren, an eminent surgeon at the time, at once consented.

The ether was administered at the Hospital by Dr. Morton on the 16th of October to a man upon whom Dr. Warren was to operate for a tumor on the face. The effect in this case was not complete; the suffering, however, was very much less than it would have been under ordinary circumstances, and the result was on the whole so satisfactory, that a second trial was made on the following day.

The patient to whom the ether was administered on the 17th of October was a female, with a fatty tumor on the arm, between the shoulder

and the elbow. At the request of Dr. Warren, I did the operation. The patient was insensible during the whole time, and was entirely unconscious. The operation lasted about seven minutes, but could not be regarded as a very severe one.

These are the first surgical operations, except those of dentistry, that were ever performed on patients while under the influence of the ether.

On the first of November I took charge of the surgical department of the Hospital, and on the following day, in conversation with Dr. Warren, I stated that I did not intend to allow the surgical patients to inhale this preparation of Dr. Morton (for we were then ignorant of the precise nature of it) during my period of service, unless all the surgeons of the Hospital were told what it was, and were satisfied of the safety of using it. Dr. Warren agreed with me as to the propriety of this course.

On the 6th of November, Dr. Morton called at my house, and asked me if I was willing to have his preparation inhaled by a patient, whose limb I was to amputate on the following day. I told him of the conversation I had had with Dr. Warren on the subject. Dr. M. at once said that he was ready to let us know what the article was, and to give to the surgeons of the Hospital the right to use it there when they pleased. He added, that he would send me a letter in the course of the day to this effect. I requested him to address it to Dr. Warren, as he was the senior surgeon, and told him that I would submit it to my colleagues at a consultation to be held on the following morning. He wrote the letter accordingly; the subject was maturely considered by the surgeons, who were unanimously of opinion that the ether should be inhaled by the individual who was to undergo the operation that day.

The patient was a girl of 20 years of age, named Alice Mohan, who had suffered for two years from a disease of the knee, which terminated in suppuration of the joint and caries of the bones. For some months before the operation her constitutional symptoms had become threatening, and the removal of the limb seemed to be the only chance for her life. The ether was administered by Dr. Morton. In a little more than three minutes she was brought under the influence of it; the limb was removed and all the vessels were tied but the last, which was the sixth, before she gave any indication of consciousness or suffering. She then groaned and cried out faintly. She afterwards said that she was wholly unconscious, and insensible up to that time, and she seemed to be much surprised when she was told that her limb was off. She recovered rapidly, suffering less than patients usually do after amputation of the thigh, regained her strength and flesh, and was discharged well on the 22d of December.

On the same day Dr. Warren removed a part of the lower jaw. There was but little if any pain in the first part of the operation; but as it was necessarily protracted, the sensibility was in some measure restored before it was over, and from the situation of the part operated upon, it was of course impossible to allow the patient to inhale the ether a second time.

The favorable effects of the inhalation of the ether in these cases, induced the surgeons of the Hospital to continue to employ it freely from that time to the present, both in that institution and in private practice; and I may add, that they have done so without any serious accident in a single instance, and with the happiest results in most cases. Besides many other operations performed there by Dr. Warren and myself, several were done in the course of the winter, on patients who had inhaled the ether, by our colleagues, Drs. Townsend, J. Mason Warren, S. Parkman and H. J. Bigelow.

It is unnecessary, however, to enumerate these, as no one can doubt the power of ether to render most persons insensible to pain, who has read the accounts of what has been done with it both in this country and Europe, and as my object in drawing up this paper is merely to state the facts in the order in which they occurred, in relation to its first introduction into surgical practice.

I ought, perhaps, to add, that in four cases the experiments with the ether did not produce the desired effect. Two of these occurred to me at the Hospital, and the other two in private practice. The first of these was that of an elderly lady, upon whom I was about to operate for disease of the breast. She attempted to inhale it for a length of time, but it had no influence upon her. It was afterwards ascertained that there was a defect in the apparatus that was used, and that none of the vapor of the ether entered her lungs.

The second case was that of a man with a fistula in ano, who was extremely sensitive, and apparently suffered very much from the slightest examination. After inhaling the ether for a short time he became violent, like a person in a drunken delirium, so that it was not easy to control him. I was able, however, to go through with the operation, though not without some difficulty. The violent symptoms lasted for a few minutes only. He afterwards said that his suffering had not been great, and that he felt as if he had drunk alcohol to excess.

The third case was that of a young, married lady, who had a tumor, not of a malignant character, in the breast. She was of a nervous, excitable temperament, and did not inhale the ether readily. After some time she became apparently insensible, and she evidently did not feel the first incision. But as soon as I began to dissect the tumor from the surrounding parts, she struggled so violently as to render it difficult to go on with the operation. It was fortunately completed, however, without any unpleasant occurrence.

Both of these cases happened at an early period, when our experience with the ether was quite limited. I am now satisfied, that if the inhalation had been longer continued, the desired effect would have been produced.

The fourth case was that of an elderly woman, whose limb I amputated below the knee at the Hospital in January last. She inhaled the ether without difficulty, and was insensible during the first part of the operation. She, however, soon became slightly convulsed, her countenance assumed a livid appearance, and the blood that flowed from the incisions was darker colored. The mouth-piece of the apparatus was at the time in her

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mouth, and her nose was compressed by an assistant. The apparatus was immediately removed, and almost at the same moment she gasped, made a full inspiration, and her consciousness and sensibility were restored. She was in a state of partial asphyxia; and on examining the apparatus, which was used that day for the first time, it was found that the air did not enter into the receiver which held the ether without breathing very forcibly, more so than the patient was able to do. So that in fact she got no air into her lungs after she had exhausted that contained in the vessel from which she inhaled the vapor. This is an accident so easily guarded against, that it will not probably happen again. The unpleasant symptoms in this case passed off in a few moments, and the patient did well.

If it should hereafter appear that no other ill effects than those that have been already noticed will be likely to occur from the inhalation of the ether, it will be impossible to overrate the value of the discovery of its applicability to the purposes of the healing art. The mere power that it possesses of rendering surgical operations painless, puts it above all price; but this is by no means its only advantage. It disarms the operative part of our calling of the terror with which it is uniformly regarded by patients; it enables the surgeon to operate with more safety, ease and rapidity; it prevents, in great measure, the shock which the nervous system experiences from severe and protracted operations, and which not unfrequently destroys the chance of recovery; and in addition to these, it will enable surgeons sometimes to operate under circumstances and in situations where it could not have been done, if the patient had been in the ordinary state. In my short experience with the ether, I have already had an opportunity of witnessing its benefits in each of these different ways.

Its power of producing insensibility has been seen in most of the cases in which I have tried it.

I have operated on patients whose sufferings have been mitigated, and whose lives will no doubt be prolonged by the operation, who would not have submitted to it under ordinary circumstances; and it will be readily believed, that a surgeon will operate with more coolness when he is confident that he is giving no pain, and he certainly can do it more safely, and with greater rapidity, when the patient is entirely at rest.

There is reason to believe that the young woman before spoken of, whose limb was removed at the Hospital after she had inhaled the ether, would have sunk from the combined influence of her previous debility and the shock of the operation, if she had retained the ordinary degree of sensibility.

But there are still other advantages. We sometimes meet with cases where the parts are so morbidly sensitive, or where they are so peculiarly situated, that an operation could not be performed in the usual condition of the system. Both of these cases have occurred to me within the last few weeks.

The first of these was that of a medical friend in a neighboring town, who had suffered for several months with a disease of the side, supposed

to be connected with caries of a rib. But the part was so sensitive that he could not bear the degree of examination necessary to ascertain the precise nature of the trouble. In fact, the slightest pressure there produced violent and spasmodic pain. He inhaled the ether, but was brought only partially under the influence of it. He retained his consciousness entirely, but the sensibility was so much lessened that he allowed me to cut down upon the diseased rib, and remove a portion of dead bone. He suffered but little in the first part of the operation, and probably would not have suffered at all during the whole of it, if he had been willing to have inhaled the ether a little longer.

About a month since, I operated on a patient for a vesico-vaginal fistula, which I am confident could not have been done had it not been for the insensibility and relaxation induced by the inhalation of the ether. The fistula was in the fundus of the bladder, and before the ether was inhaled it was found impossible to force the bladder down, so as to bring it within the reach of any instruments which would be required for the operation, and the slightest examination caused extreme suffering. After the patient had inhaled the ether three minutes, the parts became very much relaxed and entirely insensible, so that I brought the fistulous opening down to the os externum, by means of a piece of whalebone carried into the urethra. In this situation I pared the edges of the fistula, closed it with two stitches, removed the whalebone, introduced a large catheter into the bladder, and then returned the organ to its natural situation, without giving the patient the least pain, and without her being in the slightest degree conscious. The whole time, from the beginning of the inhalation to the completion of the operation, was twenty-one minutes, and I have never been able to do the operation before in much less than an hour. The ether was administered in this case by means of a sponge well saturated with it, which was held to the nose and mouth, and re-applied occasionally whenever there was any indication of returning sensibility.

This I believe is the first instance in which a fistula in the bladder in this situation has been operated on, except, perhaps, by cautery; and I am confident, though this first attempt may not be successful, that the patient can in this way be ultimately very much relieved, if not entirely cured of one of the most distressing infirmities with which human nature is afflicted.

I cannot close this article without saying, that all the patients on whom I have operated while under the influence of the ether, have recovered, and I should think more rapidly than they would have been likely to have done under ordinary circumstances. In no instance that I have seen, has there been headache or any cerebral symptoms after the inhalation, nor have I been able to discover any unpleasant effect from it. How far and in what cases it will be used in the practice of medicine, it is not easy now to determine; but that it will be employed by physicians to a great extent, I have no doubt.

*Boston, April 12th, 1847.*

## DENTAL EDUCATION IN BALTIMORE.

To the Editor of the Boston Medical and Surgical Journal.

DEAR SIR,—From the great interest you have always manifested in the progress of dental science, and in the improvements made in the art and practice of dental surgery, and from the friendly notice given in your valuable Journal of the late commencement of the Baltimore College of Dental Surgery ; and, finally, from having lately visited the last-mentioned city, and witnessed, with high satisfaction, the thorough course of instruction delivered in the institution there, I am encouraged and induced to furnish your readers with the result of my observations and inquiries upon the scheme of tuition there carried out.

The institution contemplates the thorough education of pupils in the theory and practice of dental surgery, considered as a special branch of general medicine and surgery. To this end, two of its four chairs are occupied by practising physicians and surgeons, and two by practising dentists. By the former are taught, anatomy and the principles of medicine and surgery, with special reference to those structures and diseases which are more peculiarly liable to require the aid of the dental surgeon ; by the latter, theoretical, practical and mechanical dentistry in all its departments. Precisely on the same ground that a scientific oculist is expected to be acquainted with general medicine, a well-informed dentist ought to possess similar information. As the benefit resulting from the dentist's practice must depend on his manual dexterity, especial regard is had to the imparting a complete and practical knowledge of the operative part of the art, and certainly the facilities afforded for this purpose by the College are extraordinary. Many years experience in my own case, and a course of study with the best European advantages, did not compare with the conveniences for study there proffered. Large, commodious and well-lighted rooms, with furnaces, work benches, &c. &c., are provided ; a skilful mechanical demonstrator is daily with the students for the purposes of mechanical dentistry ; he operates before the class, and, in every possible way, lays before them the best mode of practice ; while, to crown all, a dental infirmary, attached to the building, enables the students to perform the several operations under the eyes of the demonstrator and professors. The museum contains a large number of models, diseased specimens, &c., to which the students have access. In short, the College offers every desirable facility to the pupil, and the fault must be his own should he fail to acquire a proper knowledge of his profession.

The College buildings are large, well ventilated, comfortable and centrally situated. The professors feel that they have now done all that could be expected from them in order to elevate the dental art to its proper place as a branch of medical and surgical science. They have, by their own exertions, established a school which holds forth every advantage to the pupil which could be hoped for from such a foundation, and at a price far below what is commonly paid to a dentist of repute for private instruction. Whether the institution shall fulfil the intentions of its founders, and realize the hopes of its friends, must now in a great

measure depend on the exertions of scientific dentists, and of the medical profession at large, in its behalf. I have the honor to be, with high respect,  
 Your obliged and obedient servant,  
 ELEAZAR PARMLY.  
*New York, April 8, 1847.*

### "THE BOOK OF THE FEET."

[Communicated for the Boston Medical and Surgical Journal.]

A REPRINT of a work with this title, said to have been very popular in London, where it was originally published, has made its appearance here, giving the public the cause of corns, bunions, and other sad ills which the human foot is heir to; also a history of the styles of boots, shoes and sandals, which are or have been worn by different nations of the earth. It is a non-professional work, or rather not a medical work, the author being J. Sparkes Hall, Boot-maker to her Majesty Queen Victoria, and other distinguished ladies of Europe. Extracts from the works of Erasmus Wilson, Sir Charles Bell, and M. Durlacher, are introduced to sustain the author's views in relation to the structure and diseases of the feet. From page 99 we quote the following:

"For upwards of twenty years, as a boot-maker, I have made the feet my study, and during that period many thousand pairs of feet have received my attention." This is very well. A little further down the page something occurs not quite so well. "Thirty-six bones and thirty-six joints have been given by the Creator to form one of these members (the feet), and yet man cramps, cabins and confines his beautiful arrangement of one hundred and forty-four bones and joints, together with muscles, elastic cartilage, lubricating oily fluid, veins and arteries, into a pair of shoes or boots, which instead of protecting from injury, produces the most painful as well as permanent results." It may not be expected of a boot-maker that he should go beyond his last, in twenty years' study of the feet; but by some means or other he has arrived at a curious estimate of the bones and joints of the feet; and as he has furnished no anatomical authority for the increased number set down, we must doubt his addition of ten to each foot, according to what we have thought the settled number. Notwithstanding this error, and some others of minor importance which are distributed throughout the work, there are some suggestions worthy the attention of medical men, and it is in this connection that we notice the Book of the Feet at this time.

The period of the perfect development of the bones of the tarsus varies in different individuals, and the order of development of the several bones also varies. That the use of the foot in sustaining the weight of the body at a period of partial or imperfect development, is the cause of much mischief with the feet, the medical man is well aware; but in the treatment of cases which, under the ambiguous phrase of "weak ankles," are pressed upon his notice, the seat of the difficulty is apt to be forgotten, and his plan of reparation or relief abortive. It is a frequently-repeated saying, that the medical profession is responsible for much of the quackery that exists and flourishes in our midst, and the saying is too susceptible

of proof. In some of the applications of mechanical surgery, which are too often the embodiment of fanciful or ridiculous ideas, one of the laity, who has the knowledge of the mechanic powers and of the philosophy of forces, will detect the absence of the first principles of common sense, to say nothing of other requisite qualifications, in the improved machine designed to remedy a natural defect—its action increasing the difficulty when applied, as patient and practitioner practically discover.

Do we not see trusses invented, which, if they were contrived to create a hernia, could not have been made after a better pattern? Yet are they labelled for "general cure."

Have we not recommended "bandages" and "braces," to cure prolapsus, of different organs, which, if there be any proper relation between cause and effect, are much better adapted to produce the evil, where, as is too often the case, previously to the applied means, no such displacement existed.

So with regard to the deformities of the feet, the more prominent of which requiring the division of tendons or not, are rationally treated by surgeons, because well understood. The daily recurrence of lameness in individuals with apparently sound feet, who have in vain sought relief from their boot-maker or physician, is perplexing to both parties, and not unworthy the close attention of medical practitioners. The standard works of anatomy and physiology point out with sufficient clearness the structure and functions of the foot; yet how many, who are called upon to give advice in a case similar to one to be described, reflect upon the true cause of the difficulty.

A patient, most likely a female, consults you upon a lameness, which she says increases, and has done so for some time. Her feet at times very cold, occasional numbness and prickling, and great pain whenever the weight of her body rests upon the foot; frequently, after walking, she faints, and sometimes vomits. She has worn tight shoes, and loose shoes, steel rods, used baths and medicines, worn galvanic rings, and swallowed homœopathic pellets. Still she cannot walk. Some say she has spine disease; others, constitutional irritation settled in her feet. Neuralgia comes in to the aid of some, and Marshall Hall's reflex action sustains their peculiar views. Pressure upon such points, so as to impinge upon branches of the plantar nerves, has not been thought of, for the reason that when the arch of the foot is preserved, such pressure must be rare.

Errors in diagnosis are sometimes made among the pattern physicians and surgeons of our day, as well as those who have preceded them. They are learned, experienced, not always observing, and not unfrequently attach too little importance to what may seem trifles in a trifling case—still such a case as baffles their accumulated skill, in consultation often repeated, with little benefit to the "martyr upon the altar of science," who escapes to find a remedy among the quacks. The yielding of the bones which form the arches of the human foot, is the cause of that deformity known as weakness of the ankle-joint, and resulting, if not rightly treated, in permanent lameness and increased deformity, with, at times, excruciating pain. How is the difficulty usually met? By

some combination of steel and wood, leather and screws, designed to "prop up" the ankle-joint. A contrivance to sustain the "arch" of bones would certainly seem a more plausible method, and one which the author of the "Book of the Feet" recommends. A steel spring introduced into the shank of the boot, he has found of great benefit; and in cases such as has been described, the boot-maker's hint to the surgeon is one of value—not novel, it is true, having been applied in this country for some years—and simple as it may seem, this spring of steel, properly adapted to the peculiarities of the case, will do much to restore the foot to its proper shape and strength. When a child is the subject of the "weak ankle," or, what would be a more significant name, "flat foot," the chance for perfect restoration is greater, and symmetry may yet take the place, which deformity, aided by ignorance, would usurp. This "flat footedness" in children, is more frequent in the better classes of society, probably from the more fragile style of shoe selected, which gives no support to the tarsal arch—and, at the same time, from its shape restricts the proper expansion of the metatarsal bones—thus destroying the elasticity of step, the evenness of tread, but changing the natural points of support, forcing the beautiful mechanism of the foot to perform a halting, painful, unsightly movement.

It is certainly desirable that our boot-makers should do their share in correcting the evils incident to the mismanagement of the feet. But they and others concerned should receive instruction from those who make the human body and its actions the study of their lives. Medical literature abounds. Volumes are written, by able authors, on the history and treatment of acknowledged incurable diseases, every year. The medical press is prolific enough. But concise, clear, practical treatises on common minor departures from normal conditions, are too rare, to meet the requisition of the medical student. A young practitioner, and the individual who may discourse profoundly on the microscopic anatomy of the glands of Pacchioni, may fail to answer with propriety the question of his patient under treatment for weak ankles, who asks why she suffers so much pain in walking, and is free from it when at rest.

We like the idea of a boot maker studying the anatomy of the foot. We have long thought it necessary; for a boot or shoe made after some patterns that we see, must interfere with the action of the delicate machinery connected with progression, and become an instrument of torture, which no power but the iron will of fashion would suffer to be in use, in any civilized country. It is not pretended that all deformities of the feet, or all misshapen ankle-joints, result from error in bones of the tarsus; nor do we intend to enter into an inquiry, at this time, respecting the causes of other "foot troubles." But the advent of the "Book of the Feet," from a non-medical pen, induced us to invite the attention of such of the profession to it as have not given the subject sufficient thought, which may be productive of good to their patients and themselves. J. S. J.

*Boston, April 15, 1847.*

## IRREDUCIBLE HERNIA.

By G. Heston, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

In medical language, a hernia is called irreducible when it is incapable of being returned into the abdominal cavity by outward pressure. The great inconvenience which results, the suffering, the danger to life, the anxiety, incapacitating the individual for active exercise, and thus constituting a source of constant apprehension, are well known to the medical practitioner. The following are some of the causes which I will mention, that tend to induce the abnormal condition of the protruded parts. Increased volume of the hernial protrusion, preternatural adhesions of the contained parts to each other or to the sides of the hernial sac, and surrounding parts, and membranous bands form across the sac, thus preventing reduction in these cases. In irreducible ruptures of long standing, the omentum and mesentery gradually descend into the sac, and become thickened and enlarged beyond the constricted portion or neck, proving a great obstacle to reduction. By whatever cause, sudden or otherwise, a hernia becomes irreducible, the patient is subjected to much suffering and danger.

A few months since, a single lady, living near Boston, aged about 30 years, very delicate and spare habit of body, and nervous temperament, was placed under my care for relief. She had been troubled for about two years with an irreducible femoral or crural hernia of the right side, the size of a pullet's egg, and not being willing, until now, to make her case known, went about without any external support to the parts. Her severe suffering, at irregular intervals, with colic pains, nausea, constipation, &c., could only be removed by taking the bed, and sending for her physician. Previous to my seeing the patient, a consultation of medical gentlemen had been called, and every effort at reduction made, but without success. A hollow-padded truss was decided upon, carefully prepared, and applied to the parts; but could not be worn with any ease or comfort in consequence of the irritation and soreness which it produced. On this account, the patient was obliged to lay it aside, and resort to the bed as the only relief, while she continued to lose flesh and strength daily. Upon examination, I found the swelling quite hard, or inelastic, which was supposed to consist of omentum. After the trial of some additional remedies, with the application of ice to the part, horizontal posture, &c., without any good effect, I decided to cut down and dissect away the adhesions, and return the protruding mass. The operation was commenced in conformity with the wishes and advice of her relations and physician, assisted by my friend Dr. J. W. Warren. The incision was made at nearly right angles with Poupart's ligament, exposed a thin, superficial fascia, which I divided, but in cutting further, and coming down upon the omental portion of the protrusion, everything seemed changed from the healthy and natural state, in consequence of adhesions of a strong and cartilaginous nature, running apparently through every part concerned in the operation, and firmly binding them together. The remaining steps in the



completion of the operation consisted in carefully separating and dividing, fibre by fibre, with the scalpel, till I reached the crural ring or neck of the hernia, which was divided freely directly upward, and the parts returned, after great exertion, into the cavity of the abdomen. The lips of the wound were now brought together and retained with sutures and bandages, and the patient carefully placed in bed. She bore the operation as well as could be expected under all the circumstances of the case, and but little blood was lost. No unfavorable constitutional symptoms appeared during her recovery, which was very rapid. A radical cure was accomplished in three weeks, and in four weeks' time the patient was able to walk about the city, without wearing any truss or external support of any kind to the hernial region. She continues well.

A married lady, from Grafton County, N. H., aged about 44 years, recently consulted me in consequence of a large hernia, situated in the left inguinal region, which had existed for sixteen years; and also a small hernia of the right side, which was becoming troublesome, and of about two years standing. That of the left side, as patient stated, had remained irreducible for more than nine years, causing great suffering from time to time, and disabling her for active exercise, thus destroying her general health and usefulness. She had been under the care of some of the most eminent surgeons of her State, besides consulting one or two of Philadelphia, but could obtain no permanent relief, owing to the impossibility of returning the protruding parts. Trusses with hollow pads, bandages, &c., had been almost constantly worn, to the great annoyance of the patient. Upon careful examination of the tumor or hernial mass, I found it to be soft and quite elastic to the touch, strictly indicating the presence of bowel. The sensations produced on pressure were described by the patient to be very disagreeable, and referred to the bladder, with nausea at stomach, &c. The opening through which the hernia descended was above Poupart's ligament, in the inguinal space, and at first seemed difficult to be recognized, and located with certainty, on account of the spreading out and size of the hernia beneath the superficial integuments. After making use of the necessary preparatory steps or treatment in the case, and much perseverance, I succeeded in reducing the tumor by the taxis and the sub-cutaneous operation. The operation caused but little uneasiness to the patient; but the reduction was accompanied with severe pain and a gurgling noise like that of the return of the bowel in other but similar cases. The effect of the operation upon the parts, with some additional scarifications after reduction, caused an attack of inflammation, which confined the patient to her bed for about two weeks. In the mean time the other side was operated upon in a similar manner, with entire success, and the patient in about six weeks allowed to walk about the city, and also to return home. She continues entirely well of her hernia, and has no necessity of any further use or application of trusses, &c.

*Remarks.*—I cannot agree with many surgeons of eminence who think that an irreducible hernia should be left to itself. It must of course be exposed to all the consequences of external injury and violence, and hence a variety of cases are recorded in which the bowels have been

burst by blows, &c., and lives lost. Its bulk and gradual increase, in most cases, are sources of great inconvenience, and the constant liability to strangulation expose the patient to danger. Trusses with hollow pads, and bandages, are and may be recommended; but they do not, and cannot, give relief, however well or scientifically applied. Agreeably to my experience in these cases, in many years practice, we need not despair of returning a rupture of long standing, with safety to the patient, even when adhesions exist to a very great extent.

*Boston, April 15th, 1847.*

#### FOREIGN MEDICAL HONORS—THE HYDROPATHIC ESTABLISHMENT AT BRATTLEBOROUGH, VT.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—I take the liberty to ask of you the insertion of the following questions in your valuable Journal—questions which I put to "Doctor" Rob. Wesselhæft, formerly one of the officers of the Criminal Court in Saxon-Weimar, now director of the Watering-place, Brattleborough, Vt., for the sake of my own information and the correction of errors, under which all his acquaintances in Germany seem to labor. Miss Catharine E. Beecher might perhaps have been led, by some cause or other, into mistakes, which by all means ought to be corrected.

1. Which German university was it at which "Doctor" Wesselhæft received a *thorough and extensive medical education*?

2. By which government was R. W. examined and licensed to practise medicine? As far as I know, Dr. W. has never been in the moon.

3. Where did W. practise (of course, medicine) five years?

4. Who were the gentlemen in connection with whom he contends to have been attached to civil and military hospitals?

5. Where are these civil and military hospitals?

6. Which government appointed Dr. W. to investigate the claims of several water-cure establishments?

7. Where is only one of those most celebrated establishments in which Dr. W. is said to have resided several months, and when?

8. Is not his five weeks' residence with Dr. Fitzler in Ilmenau (which cannot properly be called a water-cure establishment, as every one in Germany knows), all the time he lived in any water-cure establishment?

Hoping that you will kindly excuse my intrusion into your pages, with my desire for information in regard to assertions which affect the public welfare, I have the honor to sign myself, with due respect,

*Philadelphia, 6, 4, 1847.*

Your ob't serv't,

DR. CHR. CHS. SCHIEFERDAKER,

Corresponding Member of the Society of Scientific Hydropathists in Germany.

#### COLD WATER IN THE TREATMENT OF HERNIA.

To the Editor of the Boston Medical and Surgical Journal.

SIR,—In the month of August, 1846, I had been absent from home, and returning late in the evening, after unharnessing my horse, stepped to the

waggon to adjust the harness therein. I came in contact with a projection on the fore part of the same, which struck me on the right groin, and caused a very painful inguinal hernia. It was with much difficulty that the intestine was replaced; this being done, I immediately secured it with a compress of several thicknesses of cotton cloth, wet with cold water. I then took one of the Shaker Rocking Trusses, which I carefully applied, and continued to keep the cloths wet for nearly two weeks. I found the soreness and pain left me, and I left off the compress of cloth, but still continued to wear the truss. In two months I was sound as ever, and experienced no more inconvenience than I had formerly; yet I still wear the truss.

I attribute the cure more to the cold water, than anything else, though the truss was undoubtedly an agent in keeping the intestine in its place, and closing the orifice of the rupture. I am, with due respect,

March 10, 1847.

PETER FOSTER.

#### UNIVERSAL SPASM OF THE BODY.

[FROM the notes of a visitor, the following account of the anomalous condition of Sarah Purbeck, of Salem, Mass., has been abbreviated. Miss Purbeck is represented not to have slept for a moment, nor been free from pain, for fifteen years. Her body and limbs are in perpetual motion—and almost all the joints in her body have been dislocated thousands of times.]

When I entered her room, she was sitting up in bed, and her right arm, hand and fingers were twisting about in every direction; presently she leaned forward and threw herself back against the headboard, as if determined to break her head. The headboard was within an inch or two of the wall, and though a large, well-stuffed pillow was placed against it, when her head struck the pillow it was with such force that the bedstead struck the wall, causing the whole house to tremble. During ten minutes that I sat there, she was thrown back in that manner over thirty times. It appeared to me that each blow of her head against the pillow, board and wall, was sufficient to stun a common person, yet she hardly appeared to notice it.

During the intervals between these spasms her right arm, hands and fingers were twisting about, and her right shoulder and under jaw were drawn out of joint and in continually, the bones rattling and grinding together with a noise that could be heard in other rooms, as I was told by several present. Being deaf I could not hear them, but by placing one hand on her cheek and the other on her shoulder, I could feel the grinding and crackling as the muscles keep them in constant motion.

Sometimes her jaws are locked several hours and even days; and at one time, if I remember right, they were locked twenty-five days, when all the nourishment she took was through the aperture caused by the loss of a tooth.

Her jaws have been so often dislocated, she can bite nothing except

when the contraction of the muscles throws her teeth together, and then her tongue is often caught between her teeth and severely bitten. She takes no nourishment except in a liquid state, and that with the greatest difficulty, as it causes strangulation, spasms, and severe distress.

These spasms sometimes throw her from her bed to the plastering over head, and sometimes on to the floor, and any attempt to hold her increases her agony.

Her hand is sometimes thrown up into her face with such force as to bruise her face and break the skin, and one of her eyes has thus been destroyed.

While conversing with her, her jaw was thrown out of joint, and drawn down in a most shocking manner, and she was thrown back three times with such force as caused the whole house to shake, and the moment the spasm ceased she finished her sentence, commencing at the very word where the fit had interrupted her, and with so calm a voice, that I asked her, in astonishment, if she felt no pain when thus attacked. She said the pain was so excruciating, if she would give way to her feelings, her screams might be heard half a mile; but as that would only distress others, she had learned to be quiet.

Her father is over 90 years of age, and had a shock of palsy, from which he had partially recovered when I saw him. Her mother is over 70, and has had the care of this suffering child until prevented by sickness within a year and a half. At the time of my visit she was confined in the same room in a very feeble state.

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## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON, APRIL 21, 1847.

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*Inhalation of Gases in Surgical Operations.*—Within a few days a neat duodecimo pamphlet has been circulating, with the following title—"A history of the discovery of the application of nitrous oxyde gas, ether, and other vapors, to surgical operations, by Horace Wells," of Hartford, Conn., which has created some sensation in certain scientific circles. The pages are principally filled with testimonials of the very highest order, with a view to proving the priority of the author's claim to the honor of having made use of some if not all the innoxious gases, to lessen the amount of suffering in surgical operations. Dr. Wells's first manifesto, in which he declared that he visited Boston and exhibited his discovery to Drs. Jackson, Warren and Hayward, and which appeared in this Journal at an early period of the etherical war, is repeated, in connection with facts of no small value in establishing a claim to the honor of priority of discovery. Not wishing to interfere with the interest the pamphlet is calculated to produce, we have not copied the affidavits, although entitled to much consideration. Since the value of the patent is likely to be of no importance, the next point to be decided is, who is to enjoy the honor of having been the discoverer? There are so many claimants, and the glory is already spread out with such tenui-

ty, that neither parliaments nor learned societies will be very likely to recognize any one as a beneficiary in the way of medals or diplomas. We deplore the excited state of feeling existing among the gentlemen contending with their pens for the disputed territory. Several approached the point of discovery, it seems, nearly at the same time. Dr. Wells struck upon the nitrous oxyde gas, according to the observations of his antagonists, instead of ether, which was a near approach and unquestionably had an influence in leading the way to the great results that followed. A hostile array of pamphlets may now be anticipated, of which this is only the advanced guard.

*Triumphs of Young Physic.*—William Turner, Esq., A.M., M.D., late Health Commissioner of the city and county of New York; member of the N. Y. Med. Society; American editor of the Principles of the Chrono-Thermal system of medicine, &c. &c., has favored mankind with a pamphlet of "Chrono-Thermal facts, or the Triumphs of Young Physic," which quite takes us by surprise. It is a kind of bombardment of allopathy, but the author has had the humanity to define his position, that Old Physic may know what to expect on all coming occasions. So many new schools of practice are rising into notice, claiming to be Young Physic, that whoever would keep up an acquaintance with them all, should fortify his memory with a memorandum book. After examining this record of cures by Dr. Turner, comprising pages of certificates from patients who have been under treatment, we are convinced that they are like the testimonials of newspaper notoriety, sent forth for a selfish end, and not for the noble and praiseworthy purpose of advancing the science of medicine. What course do the Chrono-Thermal physicians pursue with the sick? Will some one, in the city of New York, have the goodness to furnish us with a brief general plan or process of managing disease under the advice of one of these Young Physics, and we shall then refer to Dr. Turner's publication with a better understanding.

"*The Mass. State Record and Year Book of General Information.*"—In the character of an index to every thing in the Commonwealth, as associations of all sorts and kinds, embracing the names of the guiding stars in each, from the governor down to a parish sexton, there is no other work known to us so copious and satisfactory as this. It must be of daily utility to our medical friends throughout the State, and it is recommended to their notice. It gives the name of every physician in Massachusetts, and his location, with but a few exceptions, accompanied by a catalogue of societies in which medical men are more or less interested. It is one of the marvels of the day, however, that the Berkshire Med. Institution should have been overlooked. But there is a ready apology for Mr. Capen, when it is recollected that this is the first in a contemplated series of Year Books, and it is a difficult matter to collect all the statistics of Massachusetts, which is a perfect bee hive of industry. Next year the Record will unquestionably far surpass the first volume in copiousness and minuteness of detail. For the physician's table it is an uncommonly useful daily guide to men, institutions and things in Massachusetts.

*Chairs for Schools.*—Through the unwearied exertions of Joseph W. Ingraham, Esq., an efficient member of the Boston Primary School Com-

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mittee, chairs have been introduced into our public schools for children. Strange, with the foresight and characteristic wisdom of our Puritan forefathers, that they should have overlooked the comfort of a school seat with a back. From generation to generation, we have all received our primary literary knowledge, on a wooden bench; and how many well made heads have been spoiled by blows from the ruler of impatient mistresses and exacting pedagogues, because the weary little urchins under their guidance did not always maintain an exact perpendicular attitude, no record remains to show. Certain it is, however, that backs, bones and limbs have more or less been permanently injured, and even distorted, in the school room, in consequence of the neglect of the proper authorities to furnish chairs. Thanks to an enlightened age and the progress of common sense in our city, seats have been introduced at last, properly constructed. Mr. Wm. G. Shattuck, No. 80 Commercial street, manufactures these admirable chairs, and we heartily recommend them to the immediate patronage of all school committees in New England.

*The Boston Pill.*—No class of men exhibit more striking ingenuity than the manufacturers of nostrums. Their tact in forcing vile compounds into the stomachs of the vulgar multitude, exceeds the generalship of Santa Anna. Some cunning fellow has lately brought to market his Boston pills, which appear, from the description of their effects, to be, as usual in such cases, quite astonishing. It would seem impossible that people could be found in this intelligent community to be the dupes of these designing pill manufacturers; but mortifying as the fact is, the city abounds with a multitude of men and women, of apparent intelligence, who run eagerly for the last advertised medicine. They are always under the influence of the newest secret remedy. The Boston pill is the prominent topic in a quarto sheet circulating the streets, in which the laudations of the article are unmatched specimens of Yankee contrivance for making sales. Even a piece of poetry has been manufactured to suit the case, that leads off in martial spirit thus:—

"Shout! shout ye afflicted, hurrah!  
Shout! shout it from valley and hill,  
Shout! shout till the sound fills the air,  
Hurrah! here's the great Boston Pill."

*Medical Book-making.*—After a period of bibliographical repose of some months, new books begin to heave in sight. This is gratifying, because it looks like thrift with the trade, and activity among authors. It has become a distinct department of trade to construct medical books, as any person may discover when six or a dozen new treatises are manufactured out of one. Americans have the reputation of being wonderfully ingenious in this way. But a candid examination of the whole ground leads us to the opinion that as much originality is discoverable in the medical works of the United States, as in those of Europe.

*New Publications received.*—It is inconvenient to do more at this time than acknowledge the receipt from Messrs. Lea & Blanchard, Philadelphia, of the following work—"Lawrence on Diseases of the Eye, by Dr. Hays; Practical Diseases of Children, by Dr. Condie, a new and augmented edi-

tion; and Wilson's General and Special Human Anatomy, third edition, by Dr. Goddard. The profession in America is greatly indebted to this publishing house for the number, value, and reasonable prices of standard works sent out by them, on medicine and its collateral branches.

*Delegates to the Medical Convention.*—At the last quarterly meeting of the Middlesex District Medical Society, the following persons were chosen to attend as delegates the Medical Convention in Philadelphia, next May:—Elisha Huntington, M.D.; John W. Graves, M.D.; Nehemiah Cutter, M.D.; Josiah Curtis, M.D. Dr. Huntington was chosen, also, a delegate to represent the State Society.

*Preliminary Medical Studies.* (To the Editor of the Boston Medical and Surgical Journal.) DEAR SIR,—Physicians in the country have frequent applications from young men, more or less promising for their talents and attainments, for *induction* into the study of our profession. A majority of them are unable to repair at once to our cities, or the neighborhood of medical colleges, where, no doubt, they would find the best facilities; but must economize their resources by a less expensive preliminary preparation. Many physicians are competent to mark out at once the *definite* plan of study—the most desirable elementary books—the amount of time, or rather of *achievement*, desirable, before attending a *first* course of lectures; and indeed, to decide, satisfactorily, many other questions highly important to the future success of these young applicants, and I might add, to the honor of the profession, and the safety of community. I am induced to make these suggestions by noticing your abstract of Dr. Clarke's Introductory, at the Boylston Medical School, which contains much obvious and important truth. Can you better serve the profession, or the public, than by furnishing for the Journal, some general outline for the assistance of country physicians, and for the benefit of their pupils? Yours respectfully,

St. Albans, Vt., April 10, 1847.

J. L. CHANDLER.

*National Medical Convention.*—It will be remembered that the National Medical Convention held in New York, May, 1846, adjourned to meet in Philadelphia, May, 1847. We have no disposition now to enter into an exposition of our views on the subject of "medical reform"; and although it is evident that many things might be improved, still we have not much faith in the ability of the Convention to abrogate the evils which are known to exist. Some of the schemes for reform proposed by the last Convention, we regard as having a detrimental, instead of beneficial, tendency; others are obviously impracticable, however desirable; while a few may be carried into practical operation. Such is the character of our civil and social institutions, that they offer insurmountable barriers to the accomplishment of several of the proposed measures.

Notwithstanding these doubts and misgivings, which we believe are entertained generally by the faculty here, still Transylvania University is willing to contribute her part towards the accomplishment of any measures which may tend to elevate the profession of medicine; and with this feeling, Professors Mitchell and Bartlett have been appointed delegates to attend the Convention.—*Western Lancet.*



**Remedy for Toothache.**—To a hundred grammes of sulphuric ether, in which as large a quantity as possible of camphor has been dissolved, add two or three drops of ammonia; thus is obtained a camphorated ammoniacal ether, which, if applied to carious teeth, immediately relieves the pain. M. Cottureau, who is the author of the preparation, has used it in great numbers of cases with invariable success. The ether evaporates so rapidly that a layer of camphor is left in the dental cavity, which, although too light to incommode as a foreign body, is sufficient to protect the denuded nerve from the air. Besides this, the ammonia acts as a cautery. The solution should be kept in a perfectly-closed glass bottle.—Dr. YANDELL's *Letters from Paris, in Western Journal.*

**Medical Miscellany.**—Dr. Charles C. Allen is writing in the New York Dental Recorder upon the manners of dentists, which, in some instances, he thinks might be improved.—Most of the honey in Russia, which is far more delicious than ours, is of a green color, and made by wild bees located among linden woods.—The Norway Advocate states that a young lady in Portland, Me., had 32 teeth extracted at one time, while under the influence of ether. This was the full complement which nature gave her.—Dr. S. H. Pennington, of New Jersey, has prepared an elaborate report on the physical education of children.—Dr. Martyn Paine, of New York, was to have sailed this week for Europe, on account of impaired health.—Permission has been granted at Schaffhausen, Switzerland, to sell the flesh of horses, asses and mules, for food.—There are nearly twice as many men as women in St. Petersburg.—The average annual mortality in England is 1 in 45.—The number of deaf and dumb persons in the world is supposed to be not far from 540,000.—A bulk of carbonic acid gas is expired by a healthy adult in twenty-four hours, equal to 15,000 cubic inches—or six ounces. This is at the rate of 137 pounds avoirdupois per annum. The whole human race, therefore, would send off, in solid charcoal, in a year, 46,482,143 tons!—Dr. Wm. O. Baldwin, of Montgomery, Ala., has written, in the American Journal, a paper on the poisonous properties of the sulphate of quinine.—Priessnitz, the originator of hydropathy, is sick, and the fear is that his own remedy will not save him.—Delegates to the National Medical Convention are reminded that the first Wednesday in May is the time appointed for meeting, in Philadelphia.

TO CORRESPONDENTS.—An obituary notice of the late Dr. May, Dr. Dixon's paper on Irritable Urethra, and Dr. Petit's cases of poisoning by opium, have been received and will have an early insertion.

DIED.—In Boston, Benjamin Shurtleff, M.D., 72.—At Cincinnati, Noah Worcester, M.D.

MARRIED.—At Roxbury, William Prescott Dexter, M.D., of Brookline, to Miss Margaret Austin, of Charlestown. At Hanover, N. H., Abner Hartwell Brown, M.D., of Lowell, Mass., to Miss Susan Augusta Shurtleff.—In Galveston, Texas, Dr. R. Watson, killed in an affray.—In Carleton, Geo., Sylvanus Hunter, M.D.—At Rushville, Ky., Dr. James W. Wilson, murdered in his office by some person unknown.

**Report of Deaths in Boston**—for the week ending April 17th, 66.—Males, 39—females, 23. Stillborn, 5. Of consumption, 7—typhus fever, 13—lung fever, 8—scarlet fever, 1—convulsions, 2—infantile, 4—accidental, 1—dysentery, 1—marasmus, 1—old age, 2—cancer, 1—measles, 2—croup, 1—smallpox, 1—canker, 1—disease of the brain, 3—disease of the liver, 2—dropsy on the brain, 2—teething, 3—pleurisy, 2—intemperance, 1—burns, 1—tumor, 2—child-bed, 1—apoplexy, 1—influenza, 2.

Under 5 years, 20—between 5 and 20 years, 11—between 20 and 40 years, 15—between 40 and 60 years, 13—over 60 years, 7.

*The Famine in Ireland.*—The mass of the poor population of Ireland is in a state of starvation. Gaunt Famine, with raging Fever at her heels, are marching through the length and breadth of the sister island. The British public, under the form of clubs, committees, and relief associations, are actively engaged in sending food to the famine districts. All this is done without boasting or ostentation. But parliament, and the executive, in the midst of the best intentions, seems to be agitated by a spasmodic feeling of benevolence, at one time adopting public works, at another preaching a poor-law,—now considering the propriety of granting sixteen millions for railways; and then descending to M. SOYER, the chief cook of the Reform Club, with his ubiquitous kitchens and soup, at some three farthings the quart, which is to feed all hungry Ireland.

As this soap-quackery (for it is no less) seems to be taken by the rich as a salve for their consciences, and with a belief that famine and fever may be kept at bay by M. SOYER and his kettles, it is right to look at the constitution of this soup of pretence, and the estimate formed of it by the talented, but eccentric, self-deceived originator. M. SOYER proposes to make soup of the following proportions:—Leg of beef, four ounces; dripping fat, two ounces; flour, eight ounces; pearl barley, eight ounces; brown sugar, half an ounce; water, two gallons.

These items are exclusive of two onions, a few turnip parings, celery tops, and a little salt, which can hardly be considered under the head of food. The above proportions give less than three ounces of solid aliment to each quart of the soup à la SOYER. Of this its inventor is reported to have said to the government, "that a bellyful once a day, with a biscuit, (we quote from the *Observer*.) will be more than sufficient to maintain the strength of a strong healthy man!"

To bring this to the test. Organic Chemistry proves to us that the excreta of solid-matter from the body of a healthy subject, by the eliminatory organs, must at least amount to twelve or fourteen ounces; and organic chemistry will not, we fear, bend to the most inspired receipts of the most miraculous cookery book. To supply the number of ounces, without which the organic chemistry of the human body will no more go on than will the steam-engine without fuel, M. SOYER, supposing each bellyful of his soup for the poor to amount to a quart, supplies less than three ounces, or less than a quarter the required amount, and of that, only one solitary half ounce of animal aliment, diluted, or rather dissolved, in a bellyful of water. Bulk of water, the gastronome may depend, will not make up for deficiency of solid convertible aliment. No culinary digestion, or stewing, or boiling, can convert four ounces into twelve, unless, indeed, the laws of animal physiology can be unwritten, and some magical power be made to reside in the cap and apron of the cook, for substituting fluids in place of solids, and aqua pura for solid aliment, in the animal economy.—*Lancet*.

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*The Stethoscope.*—Mr. Shillitoe, of Hertford, ingeniously suggests that the following very curious extract, from No. 201 of the *Philosophical Transactions*, contains the germ of Laennec's immortal discovery:—"A ready way to find a leak in a ship, is to apply the narrow end of a speaking trumpet to the ear, and the other to the side of the ship where the leakage is supposed to be; then the noise of the water issuing at the leak will be heard distinctly, whereby it may be discovered."